Hydrovolts Uses Autodesk Software to Create Plug-and-Play Water Turbines

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Innovative Design, Easy Installation Enables Turbines to Quickly Deliver Hydropower, With No Dams or Construction Required

SAN RAFAEL, Calif.--(BUSINESS WIRE)--Feb. 7, 2012-- Clean technology innovator Hydrovolts is using software from Autodesk, Inc. (NASDAQ: ADSK) to create unique hydrokinetic turbines that are more easily installed in rivers, canals and other waterways for faster generation of renewable energy. The company's smaller turbines can be quickly installed and generating power in less than an hour.

Hydrovolts turbine for clean energy generation, designed with the help of Autodesk software. (Photo: ...

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Digital Prototyping Streamlines Product Development

As a member of the Autodesk Clean Tech Partner Program — which provides software to established and emerging clean tech companies in North America, Europe, Japan and Singapore — Hydrovolts gained access to a variety of Digital Prototyping tools to help develop and optimize its turbines.

"Autodesk Inventor software and Autodesk Inventor Fusion software are invaluable tools for helping us digitally visualize and then revise our designs," said Burt Hamner, CEO of Hydrovolts. "And by using the Eco Materials Adviser within Inventor, we can weigh all ecological impact together with performance and financial impacts of materials for our turbines. Autodesk technology is simply more efficient than anything we've tried."

Using Inventor and Inventor Fusion on a recent project for the Bureau of Reclamation, a federal government agency, enabled Hydrovolts to quickly and accurately model a turbine for the proposed installation site, and then make appropriate changes to the prototype design in less than a week. Meanwhile, Autodesk Vault software provided complete document control, ensuring every iteration was recorded and traceable.

"Digital Prototyping can save time and money at every step of the product lifecycle," said Robert "Buzz" Kross , senior vice president, design, lifecycle and simulation, at Autodesk. "By using a single digital model, clean tech companies like Hydrovolts are able to develop their products more efficiently and deliver the innovative energy solutions that the marketplace is demanding."

Smart Design Makes Turbines Easy to Use

Much of the speed of installation is due to the highly efficient design of the Hydrovolts turbines. All of the different classes of turbine have been engineered for easy "drop-in" installation — eliminating the need for dams or other permanent constructions. The turbines are held in place by mooring lines, while an output cable plugs directly into the power load onshore.

In addition, the Hydrovolts turbines are specifically engineered to easily accommodate different types of rotor blades for optimal efficiency in the existing current. This adaptability enables users to select the blade that can deliver the most power for the least cost, based on a waterway's unique flow.

About the Clean Tech Partner Program

The Autodesk Clean Tech Partner Program supports the efforts, innovations and environmental advancements of clean technology pioneers, providing world-class software to design, visualize and simulate their ideas through Digital Prototyping. Clean tech companies in North America, Europe, Japan, and Singapore are invited to apply to receive up to $150,000* worth of software for only $50. Access to a collection of Autodesk industry-leading software includes up to five licenses each of Autodesk Product Design Suite Ultimate, AutoCAD Revit Architecture Suite, Autodesk Simulation Mechanical, Autodesk Inventor Publisher and Autodesk Vault Professional software. Get more information.

About Hydrovolts

Incorporated in 2007, Hydrovolts offers new in-stream hydrokinetic turbines for clean energy generation around the world. For additional information, visit www.hydrovolts.com.

About Autodesk

Autodesk, Inc., is a leader in 3D design, engineering and entertainment software. Customers across the manufacturing, architecture, building, construction, and media and entertainment industries -- including the last 16 Academy Award winners for Best Visual Effects -- use Autodesk software to design, visualize and simulate their ideas. Since its introduction of AutoCAD software in 1982, Autodesk continues to develop the broadest portfolio of state-of-the-art software for global markets. For additional information about Autodesk, visit www.autodesk.com.

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